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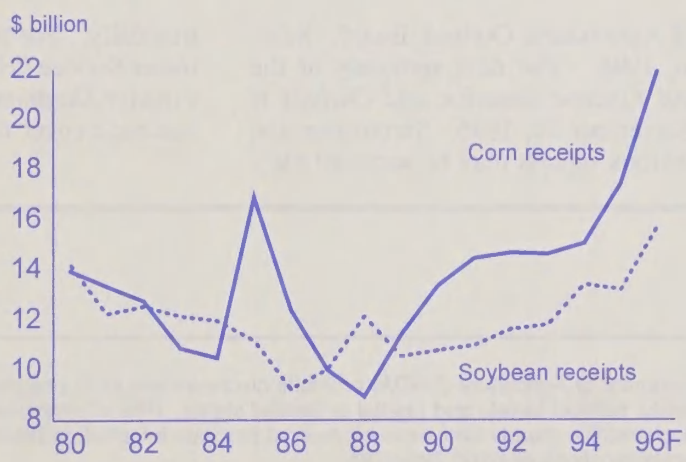
Situation and Outlook Report

Higher corn and soybean receipts will help boost 1996 farm income



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Contents

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Summary

Strong Crop Receipts Will Boost 1996 Farm Income

Net farm income is forecast at $45-$55 billion for 1996, compared with the $35 billion forecast for 1995. Potential record receipts for corn, soybeans, and wheat should boost 1996 farm sector income despite generally higher expenses. Although 1995 crop receipts were record high, decreased livestock receipts and higher expenses for feed, labor, and other inputs made 1995 net farm income the lowest of the 1990's.

Corn receipts in 1996 could surpass the record $17 billion forecast for 1995. As a result, corn will have the largest positive influence of any commodity—crop or livestock—on 1996 farm income. In contrast, 1996 cattle and calf receipts could fall for the third consecutive year to below the $34 billion forecast for 1995. Because of the decline, cattle and calf receipts could have the largest negative influence of any commodity on 1996 farm sector income.

Under the Federal Agriculture Improvement and Reform Act (FAIR) signed in April, government payments in 1996 are forecast at $7-$9 billion. FAIR specifies the amount of crop-related payments that will be divided among participating farms for each of the 7 years it is in force. Only those farms that participated in the previous farm program will be eligible to participate under the new program.

Production expenses in 1996 could surpass the $172 billion forecast for 1995. Feed expenses will increase due to higher prices for corn and soybean meal. High nitrogen prices will be particularly important in 1996, a year when farmers are increasing acreage planted to corn, a heavy user of nitrogen fertilizer. Also, fuel prices have been around 15 percent higher in the 1996 planting season than a year earlier.

Farm income will decline for farms specializing in beef production, whereas most farms specializing in crops will realize higher incomes. That's because beef receipts are forecast to decline while feed expenses rise. Regionally, farms in the Northern Plains and Corn Belt are best poised to take advantage of the higher forecast corn and soybean receipts.

The value of U.S. agricultural assets could increase around 2 percent in 1996. Most of the increase will be from rising real estate values. Higher cash receipts and favorable interest rates are supporting growth in farm sector investments. Farm debt could increase around 3 percent in 1996. Despite concern over reduced short-term profitability of some cattle operations, farmers and lenders maintain confidence in the long-run profitability of production agriculture.

Strong Crop Receipts Will Boost 1996 Farm Income, While 1995 Farm Income Was Held Down by Anemic Cattle Receipts and Higher Expenses

Potential record receipts for corn, soybeans, and wheat should boost 1996 farm income despite generally higher expenses. Cattle producers, however, could continue to face financial stress stemming from low cattle prices, high feed prices, and drought-stricken pastures in the Southern Plains. Although 1995 crop receipts were record high, decreased livestock receipts and higher expenses for feed, labor, and other inputs helped make 1995 net farm income the lowest in the 1990's.

ERS forecasts net cash income at $51-$61 billion for 1996 and at $50 billion for 1995. During 1990-94, net cash income averaged $53 billion. When net cash income goes down, farmers have less cash available to support their families, pay debts and income taxes, or purchase equipment. Net cash income does not consider changes in farm inventories of crops and livestock. For example, a farmer might produce a bumper corn crop in 1996 but hold it to sell in 1997 hoping that prices will go up. The value of the stored corn is omitted from income when calculating the farmer's 1996 net cash income. However, if the farmer sold corn in 1996 that was produced in 1995, that sale is included in income for the net cash income calculation. For more detail on how farm income measures are calculated and for historical farm income numbers see appendix tables 1 and 3.

ERS forecasts net farm income at $45-$55 billion for 1996 and at $36 billion for 1995. The 1995 forecast would be the lowest so far in the 1990's. During 1990-94 net farm income averaged $44 billion. In contrast to net cash income, net farm income considers changes in farm inventories. Consider again the example of the farmer who stored the 1996 corn crop. The value of the stored corn would be included in 1996 net farm income. Also, the value of corn the farmer produced in 1995 but sold in 1996 would be deducted from income for the net farm income calculation. The net effect of these two types of inventory changes on net farm income is shown on the line labeled "inventory adjustment" in appendix tables 1 and 3.

Another difference between net farm and net cash income is that net farm income considers noncash expenses. An example of a noncash expense is the part of the value of a tractor or other equipment that a farmer uses up to produce the 1996 corn crop. The tractor may have been purchased several years before 1996, but net farm income accounts for the expense as the equipment is used to produce crops and livestock.

Farm Household Income Expected To Remain Steady

Average income of farm operator households is expected to be $43,000-$48,000 in 1996, close to what it was in 1995. Consistent with the Census Bureau's definition of self-employment income, farm income to the household is net cash farm income less depreciation (adjusted for the share received by the senior operator's household in the case of multiple-household farms). In 1996 the average amount of adjusted farm income going to operator households is forecast at $4,000- $6,000, while average off-farm income is expected to be $39,000-$42,000.

Most farm households also earn some income from off-farm sources, including off-farm wages and salaries, the net income of any off-farm businesses, interest and dividends, and any other off-farm cash income received by household members. According to the most recent estimates from the Farm Costs and Returns Survey, farm households averaged $38,092 from off-farm sources in 1994, while farm operator's income from farming averaged $4,376.

Total farm household income, on average, is about equal to that of all U.S. households. Based on the 1994 survey estimates, farm household income from both farm and off-farm sources averaged $42,469. In comparison, the Bureau of the Census, Department of Commerce estimated average household income for all U.S. households at $43,133 in 1994.

The 1994 income estimates for farm operator households were revised since the last issue of Agricultural Income and Finance Situation and Outlook. The revised estimate of average operator household income from all sources was $1,671 less than the previously published preliminary estimate. The $1,671 decline was almost evenly divided between an $824 decline in farm income to the household and an $847 decline in total off-farm income. However, none of the revised 1994 household income estimates in appendix table 2 differ by a statistically significant amount from the corresponding preliminary estimate published in the previous issue of this report.

The $824 decline in farm income to the household resulted largely from a change in the treatment of the sale of breeding stock. The sale of breeding stock is now excluded from cash income if breeding stock is purchased and depreciation is reported. Excluding these sales reduces net cash income, which is used to calculate farm self-employment income. This

Higher Forecast Expenses Lower 1995 Income

The 1995 net farm income forecast published in this issue of Agricultural Income and Finance, $36 billion, is about $3 billion lower than the last published forecast. Higher forecast expenses explain much of the difference. Feed and labor expenses are among those contributing most to the lower 1995 net farm income forecast.

Feed expense for 1995 is now forecast at $24.3 billion, surpassing 1994's record $22.6 billion. Feed use data suggest that the amount of grain used in 1995 was more than previously forecast.

Labor expense for 1995 is now forecast at $16 billion, also surpassing 1994's record $15.3 billion. USDA survey data now suggest that the amount of hours worked on farms in 1995 increased from 1994. This increase, and a modest increase in farm wages, contributed to the higher labor expense forecast.

change was made to be consistent with financial guidelines established by the Farm Financial Standards Council.

The $847 decline in off-farm income reflects a change in the procedure used to impute responses when the operator refused to report (or did not know) the value for any of the six off-farm income questions on the survey. The new procedure is designed to reflect the assumption that operators refusing to provide data for any of the six income questions probably did not have income to report for one or more of these sources.

The change in the imputation procedure also affects the estimate of income from a farm business other than the survey farm. Information about income from this additional farm business is collected in the off-farm income section of the questionnaire, and this income is later added to "other farm income to the household."

Potential Record Crop Receipts Could Boost 1996 Farm Income

During the 1990's, farmers have earned 45 percent of their gross cash income from crop sales. For historic and forecast receipts for individual commodities see appendix table 4. Crop receipts are forecast at a record $99 billion in 1995. Because of the tight world grain supplies that are pushing prices upward, 1996 crop cash receipts could break that record.

Corn and soybeans are among the crops with the most potential to increase 1996 farm income. Corn has provided farmers with 8 percent of their gross cash income in the 1990's. Corn receipts in 1996 could surpass the record $17 billion forecast for 1995. As a result, corn will have the largest positive influence of any commodity—crop or livestock—on 1996 farm income. Tight global supplies will keep corn prices higher than in 1995 at least until the fall harvest begins. Also, 1996 corn production should be up because farmers no longer have to leave land fallow to participate in government farm programs and will increase corn plantings in anticipation of higher prices. Some farmers, however, may not be able to benefit from expected higher corn receipts. Farmers are having problems planting corn in the rain-soaked fields of the eastern Corn Belt and may have to switch some land to soybeans, which can be planted later in the year.

Soybeans have provided farmers with 4 percent of their gross cash income in the 1990's. ERS forecasts that 1996 soybean receipts will surpass the near record $13 billion forecast for 1995. These forecast high receipts make soybeans the commodity with the second highest potential to have a positive influence on 1996 farm income. Similarly to corn, 1996 soybean production is forecast to rise, but tight supplies will keep prices from falling.

Cattle Receipts Forecast To Decline for Third Consecutive Year in 1996; Hog Receipts Forecast To Increase

During the 1990's livestock has provided farmers with 46 percent of their gross cash income. Livestock receipts are forecast at $87 billion for 1995, compared with the 1990-94 average of $88 billion. In 1996 livestock receipts could increase around $2 billion from 1995.

Cattle and calves make up the largest proportion of gross cash income of any commodity, 20 percent in the 1990's. Cattle and calf receipts in 1996 could fall as much as $2 billion from the $34 billion forecast for 1995. For perspective, cattle and calf receipts averaged $39 billion during 1990-94. The 1996 forecast would mean that cattle and calves are the commodities with the potential to have the largest negative influence on 1996 farm income. Livestock producers now have more cattle on their operations than anytime since 1986. Despite strong sales to Japan and other Asian countries, demand has been too weak to keep prices from falling in response to the large supply.

Hogs have provided farmers with 6 percent of their gross cash income in the 1990's. Hog receipts could increase as much as $2 billion in 1996 from the 1995 forecast of $10 billion. That forecast would mean that hogs are the livestock category that could have the largest positive influence on farm income. Pork producers now have more hogs and pigs on their operation than anytime since 1980. Despite this large supply, export demand from countries such as Japan and strong demand from fast food restaurants have bolstered 1996 hog prices.

New Farm Legislation Will Increase 1996 Government Payments to Farmers

The Federal Agriculture Improvement and Reform Act (FAIR) signed in April instates a new government farm policy for 1996 through 2002. During 1990-94, farmers received 5 percent of their gross cash income from direct government payments, which averaged $10 billion per year. FAIR specifies the amount of crop-related payments that will be divided among participating farmers for each of the 7 years it is in

ERS forecasts that in 1996 . . .

Figure 1 – Higher corn and soybean receipts will have the largest positive influences on farm income

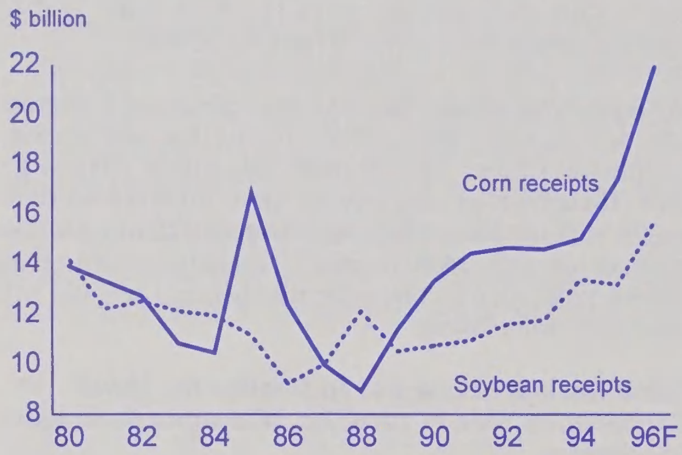


Figure 2 -- Cattle receipts will have the largest negative influence on farm income of any commodity

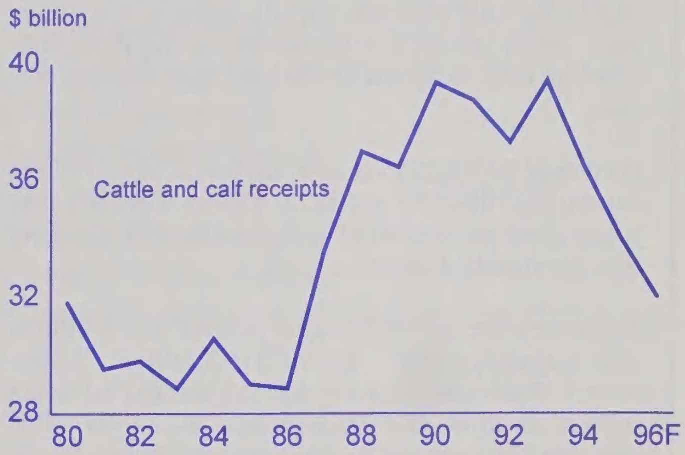


Figure 3 -- Total crop receipts will be record high

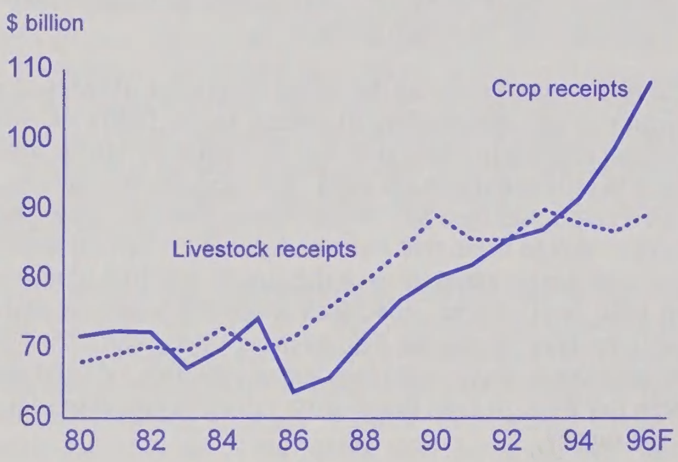


Figure 4 -- Expenses for feed and fertilizer will rise

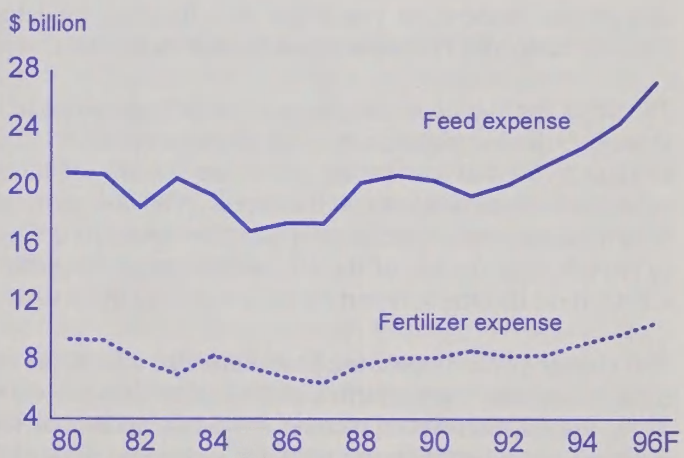


Figure 5 – Total production expense will be a record

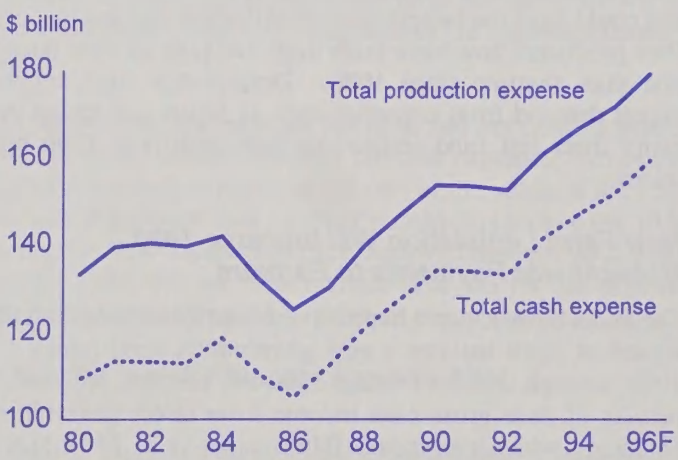
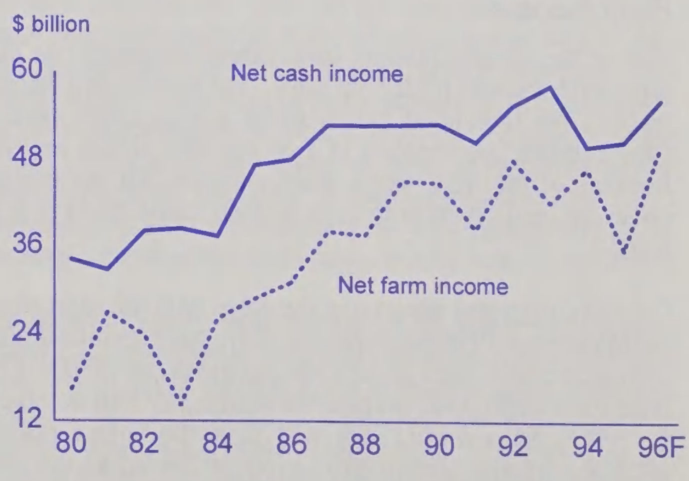


Figure 6 -- Farm sector income will be up



force. Only those farms that participated in government programs under previous legislation will be eligible to participate under the new legislation.

The goal of FAIR payments is to help farmers adjust to a more market-oriented agriculture with less government involvement in planting decisions and income support. Under FAIR, 1996 government payments are forecast at $7-$9 billion. The major uncertainty in this forecast is the timing of the payments; that is, whether farmers will receive their 1996 payments in late 1996 or in early 1997. Before FAIR, farmers received lower payments when prices rose. Given high forecast 1996 feed grain prices, 1996 direct government payments had been forecast at $3-$5 billion under the old legislation. Those would have been the smallest direct government payments in the 1990's.

Higher Prices for Feed and Fertilizer Could Increase 1996 Expenses

Total 1996 production expense, used to calculate net farm income, could surpass the $172 billion forecast for 1995. Feed, fertilizer, and fuel are among the expenses that could increase most. During 1990-94, total production expense averaged $157 billion.

In 1996 feed expenditures could surpass the record $24 billion forecast for 1995. For perspective, farmers spent an average $21 billion a year for livestock feed during the 1990's. Farmers are expected to increase production of beef, pork, and poultry in 1996, explaining part of the forecast increase in feed expense. However, higher forecast prices for commodities used for feed, especially corn and soybean meal, are the most important reason feed expense may continue to increase.

Farmers may also spend more for fertilizer in 1996 than the record $10 billion forecast for 1995. Farmers have faced high prices for nitrogen fertilizers this spring as they did a year earlier. High nitrogen prices could be particularly important in a year when farmers are attempting to increase corn acreage, a heavy user of nitrogen fertilizer.

Fuel prices during the 1996 planting season have been around 15 percent higher than a year earlier. Considering these higher prices and an expected increase in crop acreage, farmers could spend 10 to 12 percent more on fuel in 1996 than the $6 billion forecast for 1995.

Each of the income trends forecast for 1996—including record corn and soybean receipts, declining cattle receipts, and higher feed expense—will affect farm income in some parts of the Nation more than others. Also, the effects on farm income will vary depending on the commodities farms specialize in and farm size. This report considers only farms with $50,000 or more in annual sales, called commercial farms, to examine income trends by region and commodity specialty. Those farms produce most of the Nation's crops and livestock. For example, commercial farms in the Corn Belt produce 50 percent of the Nation's corn crop, compared with just 6 percent for noncommercial farms in that region.

Net Cash Income Will Decline on Farms Specializing in Beef Production

ERS considers a farm to specialize in a commodity if more than 50 percent of the value of everything it produces comes from that commodity. For instance, corn accounts for more than 50 percent of the value of everything produced on commercial corn farms.

In contrast to commercial farms specializing in most types of crops, commercial beef farms may face declining 1996 net cash income. Commercial beef farms are 5 percent of all farms and produce about 40 percent of all cattle. They earn about 70 percent of their gross cash income from cattle receipts and 10 percent from crop receipts. Their heavy dependence on cattle receipts, which are forecast to decline this year, is the major reason for the potential dip in their income. Higher forecast feed expense could also help push their income down; commercial beef farmers account for 15 percent of all expenditures for feed. On the other hand, lower cattle prices will help those commercial beef farms that purchase calves.

Net cash income may rise for commercial hog farms in 1996. Commercial hog farms are 2 percent of all farms and produce around 40 percent of all hogs. They earn about 70 percent of their gross cash income from hog receipts and 15 percent from crop receipts. The rise in hog receipts forecast for 1996 is the major reason income may rise on commercial hog farms. Higher feed expense will somewhat offset the higher hog receipts; commercial hog farms account for 13 percent of all expenditures for feed.

The largest increases in net cash income could be for commercial corn and soybean farms. Together, those two types of farms are about 4 percent of all farms, produce about 50 percent of all corn, and 40 percent of all soybeans. They earn just around 3 percent of their gross income from livestock receipts. Given their predominance in corn and soybean production, they are well poised to take advantage of the increase in receipts forecast for those two crops. Higher seed, fertilizer, and fuel expense could offset some of their higher forecast crop receipts.

Commercial Farms in the Northern Plains and Corn Belt Could Have the Largest Percent Increases in Net Cash Income

In 1996 higher crop receipts should offset lower cattle receipts and higher expenses enough to increase commercial farm net cash income in most regions. Commercial farm income in the Northern Plains and Corn Belt could have the largest percentage increases. The potential records for 1996 corn and soybean receipts are the major reasons for this forecast because commercial farms in the two regions account for two-thirds of the production of those crops. On the other hand, the Northern Plains will be among the regions most affected by lower cattle receipts and higher feed expenses. This highlights how national and regional income trends can mask the great diversity in farm financial conditions. While higher crop receipts could more than offset lower cattle receipts in the Northern Plains, commercial beef producers in that region may be facing difficult financial conditions.

Table 1--Higher corn receipts and higher feed expenses will have the strongest influences on 1996 income for many types of commercial farms

Commercial 1/ Farms with this characteristic	Could see this change in their 1996 net cash income compared with 1995	The largest positive influence on their 1996 income could be	While the largest negative influence could be	During the 1990's they have accounted for these portions of production of: corn	soybeans	cattle	hogs	And these portions of farm expenditures for: feed	fertilizer	fuel
	Percent Change			Percent						
Region 2/										
Northeast	up 0 to 10	higher dairy receipts	higher feed expense	2	1	5	1	9	4	4
Lake States	up more than 10	higher dairy receipts	higher feed expense	11	10	12	12	10	9	9
Corn Belt	up more than 10	higher corn receipts	higher feed expense	50	54	11	55	19	25	16
Northern Plains	up more than 10	higher corn receipts	lower cattle receipts	16	8	14	12	8	10	12
Appalachia	up 0 to 10	higher corn receipts	higher feed expense	3	4	2	2	5	5	4
Southeast	no change	higher poultry receipts	higher feed expense	1	1	2	2	5	6	5
Delta	up 0 to 10	higher poultry receipts	higher feed expense	1	7	1	*	6	4	4
Southern Plains	up 0 to 10	higher sorghum receipts	lower cattle receipts	3	*	10	1	6	6	7
Mountain	up 0 to 10	higher dairy receipts	lower cattle receipts	2	*	8	2	5	5	6
Pacific	down 0 to 10	higher dairy receipts	higher feed expense	1	*	6	*	13	10	10
Commodity specialization										
Wheat	up more than 10	higher wheat receipts	higher fertilizer expense	*	*	*	*	*	4	4
Corn	up more than 10	higher corn receipts	higher fertilizer expense	43	24	1	1	*	14	8
Other grain	up 0 to 10	higher corn receipts	higher fertilizer expense	20	23	2	7	2	13	9
Soybean	up more than 10	higher soybean receipts	higher fertilizer expense	6	17	*	*	*	4	3
Tobacco	up 0 to 10	higher tobacco receipts	higher fertilizer expense	*	1	*	*	*	2	2
Cotton	down 0 to 10	higher government pymts.	lower cotton receipts	1	2	*	*	*	4	4
Beef	down more than 10	higher corn receipts	lower cattle receipts	4	4	41	4	15	8	11
Hogs	up more than 10	higher hog receipts	higher feed expense	3	5	4	62	13	4	4
Dairy	up 0 to 10	higher dairy receipts	higher feed expense	2	2	18	1	32	7	9
Sales class ($1000)										
$500 or over	up 0 to 10	higher corn receipts	higher feed expense	16	15	24	22	39	22	20
$250 to $499	up more than 10	higher corn receipts	higher feed expense	21	21	11	23	15	18	15
$100 to $249	up more than 10	higher corn receipts	higher feed expense	36	35	21	29	22	29	27
$ 50 to $ 99	up more than 10	higher corn receipts	higher feed expense	16	16	16	13	10	15	16

1/ Commercial farms have at least $50,000 in annual sales.
2/ The states in each region are:
Northeast - CT, DE, ME, MD, MA, NH, NJ, NY, PA, RI, VT
Lake States - MI, MN, WI
Appalachia - KY, NC, TN, VA, WV
Southern Plains - OK, TX
Corn Belt - IL, IN, IA, MO, OH
Southeast - AL, FL, GA, SC
Mountain - AZ, CO, ID, MT, NV, NM, UT, WY
Northern Plains - KS, NE, ND, SD
Delta - AR, LA, MS
Pacific - CA, OR, WA

Given current income and expense forecasts, most regions should have smaller increases in commercial farm net cash income than the Northern Plains and Corn Belt. Commercial farm income in the Southern Plains and Mountain regions could have among the smallest increases. Those regions produce just 5 percent of the Nation's corn and almost no soybeans, so record corn and soybean receipts will give a smaller boost to their expected income. Drought in the Southern Plains will keep many farmers there from benefitting from high wheat prices. Also, reduced cattle receipts and higher feed expense could have an important negative influence on commercial farm income in the two regions.

Mid-sized Farms Could See the Largest Increase in Net Cash Income

Mid-sized farms, those with $100,000-$500,000 thousand in sales, could have larger percentage increases in their net cash incomes than other farm sizes. Again the record potential for corn and soybean receipts is important to this forecast; mid-sized farms account for close to 60 percent of production for those crops.

Farm Assets, Debt, and Equity Grow in 1996

The U.S. farm sector continues to exhibit strong financial performance. Farm real estate assets are forecast to increase nearly 4 percent in 1996. Farm debt is expected to rise about 3 percent in 1996. The resulting (nominal) gain in farm sector equity is expected to exceed the rate of inflation. Therefore, farm sector net worth in real (1992) dollars is expected to grow from $749 billion in 1995 to $755 to $759 billion in 1996.

Farm Asset Growth

The value of U.S. agricultural assets (excluding operator households) on December 31, 1996 is forecast at $982-$992 billion, up about 2 percent from 1995. About four-fifths of the increase is due to rising real estate values. Expanding cash receipts and returns to assets, and favorable interest rates are supporting continued growth in farm sector investments.

ERS's year-end estimates of farm business real estate are now based on USDA's June Agricultural Survey, conducted in the summer following the accounting year. Because the June 1996 survey data are not yet available, ERS analysts have forecast both the 1995 and 1996 real estate values included in this report. Inputs for these forecasts come from a variety of sources.

Analysts use economic models that forecast farmland values based upon expected farm income and interest rates charged on real estate loans. Analysts also incorporate economic intelligence such as estimates of farm real estate values provided by agricultural bankers surveyed by District Federal Reserve Banks. This publication repeats estimates published in December 1995, pending additional information that would permit updating those forecasts. The estimate of a 5-percent growth in 1995 farm real estate values is consistent with the 6-percent increase in 1994 (from 1995 June Agricultural Survey) and reports from rural bankers. The more conservative estimate of a 4-percent 1996 increase is based upon forecasts reflecting the longer term trend in farm property values.

Nonreal estate assets are expected to increase about $8 billion in 1996. Livestock and poultry values in 1996 are expected to rise slightly after falling nearly $4 billion in 1995. The $4-billion drop in 1995 livestock and poultry values was primarily due to an $11 billion drop in the value of cattle and calf inventories. The values of crops stored and of purchased inputs are expected to rise in 1996 after dropping in 1995. The value of farm machinery and equipment is forecast to rise about $2 billion, reflecting strong demand for tractors and favorable credit conditions.

Farm Debt To Continue Recent Rise

Preliminary estimates indicate total farm business debt will increase almost 3 percent in 1995. A slightly larger increase is anticipated in 1996. While lower than 1994's increase, these growth rates are still slightly higher than the recent trend of modest growth in outstanding loan balances. Farmers and lenders, despite concern about reduced short-term profitability in some livestock enterprises, maintain confidence in the long-run profitability of production agriculture. The nominal increase in borrowing is expected to be sustained through at least one more year, as total debt is forecast to rise about 3 percent again in 1996.

Table 2--Nominal and real balance sheets show improvement 1/

	Current dollars			Deflated dollars ($1992) 2/		
	-----Billion dollars-----					
Year	Assets	Debt	Equity	Assets	Debt	Equity
1990	838.8	138.0	700.8	896.1	147.4	748.7
1991	843.7	139.2	704.5	865.8	142.6	723.1
1992	868.4	139.1	729.4	868.4	138.6	729.8
1993	902.9	142.0	761.0	878.3	138.0	740.3
1994	933.5	146.8	786.7	889.0	139.8	740.1
1995F	952.7	150.8	805.9	885.4	140.1	745.3
1996F	982 to 992	153 to 157	827 to 837	889 to 899	139 to 143	749 to 759

F = forecast
1/ Excludes operator households and CCC commodity loans.
2/ Deflated by the GDP implicit price deflator, 1992=100.

Table 3--Total farm debt increased by $4 billion in 1995, but is $43 billion below 1984

Lender	1984	1989	1993	1994	1995P	1996F
	----------------Million dollars----------------				--Billion dollars--	
Real estate	106,697	75,978	76,026	77,642	79	79 to 83
Farm Credit System	46,596	26,896	24,889	24,583	25	24 to 26
Farm Service Agency	9,525	8,203	5,837	5,463	5	4 to 6
Life insurance companies	11,891	9,137	8,985	9,023	9	8 to 10
Commercial banks	9,626	15,658	19,595	21,070	22	23 to 25
CCC storage facility	623	12	0	0	0	0
Individuals & others	28,438	16,068	16,719	17,503	18	18 to 20
Nonreal estate	87,091	61,881	65,927	69,120	72	72 to 76
Commercial banks	37,619	29,243	34,939	36,730	38	38 to 40
Farm Credit System	18,092	9,544	10,540	11,180	13	12 to 15
Farm Service Agency	13,740	10,843	6,239	6,020	5	3 to 5
Individuals & others	17,640	12,250	14,210	15,190	16	16 to 19
Total debt	193,788	137,859	141,953	146,762	151	152 to 158
Farm Credit System	64,688	36,440	35,429	35,763	37	37 to 39
Farm Service Agency	23,263	19,047	12,076	11,482	10	7 to 10
Commercial banks	47,245	44,929	54,533	57,800	60	61 to 65
Life insurance companies	11,891	9,113	8,985	9,023	9	8 to 10
Individuals & others	46,701	28,330	30,929	32,693	34	35 to 37

P = preliminary F = forecast
Farm business debt outstanding as of December 31.

When Farm Service Agency (FSA, which includes the former Farmers Home Administration) direct lending activity is excluded from the analysis of farm business debt, the debt owed to other lenders has increased an average 4 percent a year during 1992 through 1995. FSA direct loans declined $1.3 billion in 1995, down almost 12 percent, as the agency reduced its problem loan portfolio. FSA direct loan debt is expected to decline another 5 percent in 1996.

Most Commercial Beef Operations Remain Financially Strong

Commercial beef operations, those reporting sales greater than $50,000, are facing lower cattle prices, higher feed costs, and reduced margins in 1996. Despite this squeeze on profitability, most producers appear to be well positioned to withstand a short-term reduction in income, and should be able to meet their debt repayment obligations as they come due. Commercial beef producers were in a strong financial position at the beginning of 1995. Strong balance sheets for most producers suggest that equity reserves can be drawn against to meet current shortfalls without producing long-term financial stress.

A farm operation's debt coverage margin measures the amount of net cash farm income remaining after paying all cash operating expenses and meeting current principal and interest payments on loans outstanding. In effect, the debt coverage margin reflects the cash business income available for capital investment, family living expenses, and all other purposes. Nearly two-thirds of operations reported positive debt coverage margins in 1994, and almost one-fourth had cushions of $40,000 or more.

About three-fourths of those reporting negative margins could borrow the full amount of the shortfall against existing assets. Despite negative debt coverage margins, these operations reported total assets of almost $1.37 million and net worth of almost $1.26 million. Fewer than 9 percent of all commercial beef operations reported debt coverage shortfalls that, if collateralized, would push their debt/asset ratios above 40 percent.

Farm Bill and Weather Effects on Borrowing Patterns

Several factors have served to mitigate an anticipated rise in early season borrowing in 1996. Despite farmers' intentions to increase plantings under the 1996 FAIR Act, the abnormal weather of 1996 has delayed plantings in some areas and postponed farmers' need to borrow. Also, farmers who benefited from 1995's general price rise may have adequate cash available to begin the 1996 season without drawing on operating credit lines.

Lenders generally have reported ample funds to meet the expected 1996 borrowing needs of credit-worthy customers. Bankers responding to the Federal Reserve Bank Quarterly Survey of Agricultural Credit Conditions reported that demand for loans was slightly lower at the end of 1995, while fund availability rose in most areas. The average loan-to-deposit ratio at commercial banks rose above 64 percent at the end of 1995, its highest level since the late 1970's, when many analysts felt banks were suffering from reduced liquidity. Despite these trends, over half of the bankers indicated that their loan-to-deposit ratio was lower than desired. The changing structure of banking, with mergers and evolving correspondent relationships, may be permitting individual banks to access loan sources beyond the limitations of their own deposits.

Table 4--Banks' share of farm business debt is expected to rise above 40 percent in 1996

Lender	1984	1989	1993	1994	1995P	1996F
			Percent			
Real estate	100.0	100.0	100.0	100.0	100.0	100.0
Farm Credit System	43.7	35.4	32.7	31.7	31.3	30.8
Farmers Home Administration	8.9	10.8	7.7	7.0	6.4	5.8
Life insurance companies	11.1	12.0	11.8	11.6	11.5	11.3
Commercial banks	9.0	20.6	25.8	27.1	28.2	29.1
CCC storage facility	0.6	0.0	0.0	0.0	0.0	0.0
Individuals & others	26.7	21.1	22.0	22.5	22.7	23.1
Nonreal estate	100.0	100.0	100.0	100.0	100.0	100.0
Commercial banks	43.2	47.3	53.0	53.1	52.8	52.7
Farm Credit System	20.8	15.4	16.0	16.2	17.5	18.3
Farmers Home Administration	15.8	17.5	9.5	8.7	7.1	5.4
Individuals & others	20.3	19.8	21.6	22.0	22.6	23.6
Total debt	100.0	100.0	100.0	100.0	100.0	100.0
Farm Credit System	33.4	26.4	25.0	24.4	24.7	24.8
Farmers Home Administration	12.0	13.8	8.5	7.8	6.7	5.6
Life insurance companies	6.1	6.6	6.3	6.1	6.0	5.9
Commercial banks	24.4	32.6	38.4	39.4	39.9	40.4
CCC storage facility	0.3	0.0	0.0	0.0	0.0	0.0
Individuals & others	23.8	20.5	21.8	22.3	22.6	23.3

P = preliminary F = forecast
Market shares of farm business debt outstanding as of December 31.

Federal Home Loan Banks Could Become Important Source of Funds

Also, qualifying agricultural banks can now use Federal Home Loan Banks to obtain additional loan funds. Commercial banks, life insurance companies, and credit unions have been eligible to join an FHLB since 1989. Each FHLB is a co-op, and membership is limited to institutions holding at least 10 percent of total assets in residential mortgages. After the U.S. Treasury, FHLB is the world's largest issuer of term debt. FHLBs advance funds to member institutions, which then can lend to designated borrowers. Currently, farm real estate is not eligible. FHLB advances effectively substitute for deposits as a source of loan funds for residential loans, thus freeing up funds for other activities, including agricultural lending.

Legislation has been proposed that would expand the universe of loan types and borrowers eligible for FHLB advances. While passage of such a bill in 1996 appears remote, alternative prior versions of the proposed legislation have extended eligible loans to include farm real estate loans. Expansion of banks' use of this low-cost source of funds could have serious consequences for the viability of Farmer Mac. The Farm Credit System could also face increased competition if banks use FHLB as a significant source of residential or farm real estate loan funds.

Despite the tight credit market facing higher risk loan applicants, lenders continue to aggressively pursue qualified borrowers, and competition for quality loans will continue to intensify in 1996. Commercial banks continue to gain market share, despite a recent slowdown in the rate of growth of bank debt. Bank farm loan balances rose for the eighth consecutive year in 1995, increasing over $2.3 billion, a gain of 4 percent. This was substantially less than the $3.5-billion rise in 1994, which amounted to a 6-percent rise.

Farm Credit System Nonreal Estate Loans Surge

The Farm Credit System (FCS) reported a total farm loan increase of $1.5 billion in 1995, a substantial change compared to the $620 million rise in 1994. FCS debt is anticipated to follow 1995's 4-percent rise with a gain of over 3 percent in 1996. Rapidly rising nonreal estate loan volumes have accounted for much of the recent increase. Nonreal estate loans rose 6 percent in 1994, 12 percent in 1995, and are projected to rise another 8 percent in 1996. Growth in FCS real estate lending has not kept pace. However, after declining annually in all but one year during 1984-94, FCS real estate lending posted a $181-million gain in 1995, and is expected to report a slightly larger increase in 1996.

While 1995 marked the first year that FCS' share of total debt recorded an increase since 1982, regaining market share has been a slow process for the credit cooperative. FCS' share of nonreal estate loans, which fell from 25 percent in the early 1980's to less than 15 percent in 1988, is expected to have recovered to 18 percent by the end of 1996. FCS's share of farm mortgage loans has fallen continuously from almost 44 percent in 1984 to about a projected 30 percent by the end of 1996.

Despite the recent increases, total FCS debt at the end of 1996 is still expected to be 40 percent below its 1984 peak. While FCS has experienced difficulty in increasing loan balances and in regaining market share, it continues to report improved overall financial performance. Falling interest rates improved System earnings during 1990-95. Improved bor-

rower financial condition has translated into improved FCS performance.

Banks Continue To Gain Market Share

Commercial banks surpassed the Farm Credit System as the principal source of agricultural loan funds in 1987. Apparently taking advantage of their flexibility as both real estate and nonreal estate lenders, commercial banks increased their share of all outstanding farm loans from 22 percent in 1982 to almost 40 percent by the end of 1995. Banks have benefited from the Farm Service Agency's increasing focus on guaranteed loans, which have risen from less than $2 billion at the end of 1986 to $6 billion by the end of 1995. While FSA funding for direct and guaranteed loans can be expected to be both limited in total amounts and targeted to specific borrowers for the foreseeable future, the agency will continue to emphasize its guaranteed loan programs.

Bank real estate loans outstanding have increased annually since 1982, rising 195 percent during 1983-95. Banks' share of total real estate debt rose from less than 8 percent in 1982 to 29 percent in 1995. If current growth rates continue, commercial banks should surpass the Farm Credit System as the primary source of farm real estate debt during 1997 or 1998.

Banks' share of total farm business debt is expected to increase in 1996, as banks for the first time surpass a 40-percent share of all debt outstanding at the end of the year. The gain in banks' share is due to the continued rise in mortgage lending. While nonreal estate debt held by banks is expected to grow 3 percent annually in 1995 and 1996, banks' share of nonreal estate loans is projected to decline in both years, as loans held by both the Farm Credit System and individuals and others, primarily farm machinery and input supply credit sources, are anticipated to rise more rapidly than bank nonreal estate lending.

Farm Sector Financial Performance Measures — Limitations and Interpretation

Farm income and balance sheet figures provide data to develop farm financial ratios. Key aspects of farm liquidity, efficiency, solvency, and profitability can be assessed using some common financial ratios. These estimates for 1995 and 1996 are sectorwide (an overall U.S. average).

Financial performance measures vary across regions and types of farms, reflecting the diversity of farm structure and performance across the country. Each type of farming enterprise has its own set of risk factors, causing the value of ratios to vary with the structural characteristics of the farm business.

These preliminary financial ratio data for 1995 and 1996 measure movements and trends in average relationships. They reflect the stresses and strains on resources used in agricultural production at the U.S. level. They are "aggregated" across all farm production regions and all farm types. They are not representative of individual farms, nor are they

Table 5--Returns to farm assets and equity from current income and real capital gains, 1992-1996F 1/

	1992	1993	1994	1995F	1996F
	Billion dollars				
Returns to farm assets:					
From current income	35.7	26.1	33.5	17.6	31.5
From real capital gains	3.1	20.4	11.8	7.3	7.6
Total	38.2	46.5	45.3	24.8	39.1
Average value of farm assets	827.0	841.2	856.1	943.1	969.6
Returns to farm equity:					
From current income	24.5	15.8	24.5	5.0	19.0
From real capital gains	6.9	23.4	6.9	10.2	10.5
Total	31.4	39.2	31.4	15.1	29.5
Average value of farm equity	689.1	702.7	716.9	794.3	811.7

F = forecast
1/ Excludes operator households. Totals may not add due to rounding.

representative of farms by production region or by farm type. Rather, they are composites or averages of all farms across the country.

Preliminary Financial Ratio Estimates For 1995 and 1996

Rising farm sector asset and equity values and large increases in returns to farm assets and farm equity could result in significantly higher rates of return to farm assets and equity in 1996. Forecast rates of return on farm assets and equity from current income in 1996 are expected to be considerably higher than in 1995. Total returns to farm assets, including returns from real capital gains, are forecast to be between 3 and 5 percent, compared with 3 percent in 1995. On average, rates of return on farm sector investments in 1996 are higher than in 1995, but are less than returns earned in earlier years of the 1990's.

The debt-to-asset ratio measures farm debt pledged against farm business assets, indicating overall financial solvency. The debt-to-asset ratio is forecast to range from 15 to 16 percent in 1996, and is forecast at 15.8 percent in 1995. For the farm sector as a whole, solvency indicators remain favorable.

The debt servicing ratio (a measure of liquidity) is the proportion of gross cash income needed to service debt. From 1990 to 1995, principal and interest payments required between 14 and 15 percent of the sector's gross cash income, a level expected to continue into 1996. In 1983, principal and interest payments took 28 percent of gross cash income.

Net cash farm income as a percent of farm debt is a measure of financial efficiency. It reflects the strain placed on cash flow to retire farm debt. The lower the value, the greater the stress placed on cash income to retire farm debt on schedule. The higher forecast value for net cash farm income to debt in 1996 suggests that, for the farm sector overall, financial efficiency will improve slightly.

Table 6--Rates of returns on farm assets and equity 1/

Year	Returns to assets			Returns to equity		
	Income	Real capital gains	Total	Income	Real capital gains	Total
	Percent					
1992	4.1	0.4	4.5	3.4	1.0	4.4
1993	2.9	2.3	5.3	2.1	3.1	5.3
1994	3.6	1.3	4.9	2.9	1.9	4.8
1995F	1.9	0.8	2.6	0.6	1.3	1.9
1996F	3 to 4	0 to 1	3 to 4	2 to 3	1 to 2	3 to 4

F = forecast
1/ Excludes operator households. Totals may not add due to rounding. Returns to assets and equity are calculated using the average of the current and previous year assets and equity, respectively.

Table 7--Solvency, liquidity and financial efficiency, 1990-1996F

	Debt-asset ratio (solvency)	Debt servicing ratio (liquidity)	Net cash farm income to debt (financial efficiency)
	Percent	Ratio	Percent
1990	16.4	.15	47.7
1991	16.5	.15	44.7
1992	16.0	.14	47.5
1993	15.7	.14	48.7
1994	15.7	.14	42.2
1995F	15.8	.15	42.8
1996F	15 to 16	.14 to .16	43 to 47

F = forecast

Modest Growth, Low Inflation Bring Continued Low Interest Rates Throughout 1996

In 1996, farmers will benefit from stable interest rates even as higher fuel prices increase their production expenses. Faster foreign GDP growth will more than offset an appreciating dollar and boost 1996's farm exports in every major market. Farm exports to Mexico, which fell sharply in 1995, are expected to rise significantly in 1996 due to a stronger peso and a recovering Mexican economy. U.S. farm exports are expected to total $60 billion for 1996, up sharply from fiscal 1995's estimated $54 billion.

Economic growth picked up significantly in the first half of 1996. GDP and consumer sales grew 2.3 percent and 2.8 percent in the first quarter, respectively. In the last quarter of 1995, GDP and consumer spending grew 0.5 and 1.2 percent. Real final spending grew 3.7 percent in the first quarter of 1996 with inventory liquidation taking 1.4 percent from GDP growth. The GM strike-induced fall in inventories in the first quarter will likely boost inventory accumulation and thus GDP in the second quarter.

Prospects for even faster consumer spending and GDP growth in the second quarter are excellent based on the strength of recent monthly economic indicators. The May employment report indicated broadly based growth of 348,000 jobs, while April consumer confidence reports continued at high levels. The Federal Reserve reported continued increases in consumer borrowing and strong industrial production growth in April and May. These major indicators all point to strong growth in final demand in the second quarter. The strength of the monthly indicators and the expected rebound in inventory accumulation led some analysts to expect that second-quarter GDP growth may exceed 3.0 percent.

However, GDP growth is expected to moderate in the second half of 1996 due to slowing growth in consumer spending, a slowdown in business investment growth, and declines in housing investment and government spending. During December 1995 to April 1996 monthly consumer spending grew faster than disposable income because of increased consumer indebtedness. Consumer delinquency rates have been up sharply recently and consumer debt-to-income ratios have reached high levels. Banks will likely tighten up on consumer loan standards and consumers may well be more hesitant to further increase indebtedness. Further, job and earnings growth are expected to slow from the rapid pace of the first 5 months of 1996, slowing disposable income growth.

Government spending in the next 6 months is expected to fall because of Federal deficit reduction initiatives. The sharp rises in mortgage rates since the start of 1996 will likely lower investment in housing in the last half of 1996. The March 1996 business investment spending planning survey indicates a sharp slowdown in spending for the second half of 1996. GDP growth in second-half 1996 is projected at 1.5-2.5 percent, based on modest consumption growth, a modest decline in government spending and housing investment, and slowing business investment growth.

Despite sharp energy price rises that brought annualized CPI inflation of 4 percent for February through April, CPI growth is expected to average less than 3.0 percent for the third year in a row in 1996. Business productivity rose an annualized 2.8 percent in the first quarter, indicating substantial room to further increase wages without raising inflation. Strong productivity growth in many cases has more than offset the impact of higher input prices on profits. Higher energy prices, which triggered the sharp rise in the early year CPI, have flattened and are expected to decline. Further, the ability of firms to pass on price increases has been limited by an increasingly competitive U.S. economy. Witness that the producer price index has declined 2 of the last 5 months despite the sharp rise in energy prices, reflecting little inflationary pressure from wholesale price increases.

T-bill rates will be average about 50 basis points less than in 1995. Since European, Japanese, and American growth and inflation are expected to be modest and the G-7 are cutting budget deficits, U.S. long-term Treasury yields for 1996 will be about the same as in 1995.

During the winter, middle distillate (diesel fuel and heating oil) prices rose more sharply than in a normal winter. The unusually cold and long-lasting winter in Europe and North America saw middle distillate demand outstrip world supply. Refineries struggled to keep pace with demand for heating oil, severely depleting crude oil inventories. The price of crude oil went well above $20 per barrel on the spot market, after averaging $17 in 1995. The depleted crude stocks led to higher gasoline and diesel fuel prices as more heating oil and less transportation fuel was made. Reflecting a tight market, the bulk delivery price of diesel fuel to farms rose 20 percent between April 1996 and April 1995.

Foreign Growth Up Slightly

World economic growth is expected to rise from 2.4 percent in 1995 to 2.6 percent in 1996. Among the major markets

for U.S. food exports, only Europe and Korea are expected to grow more slowly than in 1995. The European Union expects growth of about 2 percent, down modestly from 1995's 2.5 percent. Korea is expecting a slowdown from 1995's stellar 9.1 percent to a far from modest 7.5 percent in 1996. Japan is expected to have almost 2.0 percent growth—up sharply from 1995's 0.7 percent. Growth in Canada and Taiwan is expected to remain near 1995's 2.3 and 6.1 percent. Mexico is forecast to recover from 1995's recessionary decline of 6.9 percent to almost 2.0 percent growth in 1996. Mexico was the only major U.S. farm product importer that showed a decline in imports in 1995 compared to 1994. The dollar in 1996 compared to 1995 will strengthen against the mark and the yen. However, compared to the early 1990's and its peak in the mid-1980's, the dollar will still be relatively weak and some would say undervalued.

Improved Foreign Growth with Relatively Weak Dollar Boosts Farm Exports

U.S. farm exports are expected to benefit from improving 1996 foreign growth which will overcome the modest appreciation of the dollar in all major farm export markets. If the market for bulk commodities were not so tight, the dollar appreciation impact could be much larger. The higher foreign currency price of commodities is only a small percentage of the total price, allowing higher incomes to more than offset the effect of the stronger dollar.

The Mexican peso has depreciated in nominal terms. The core rate of inflation in Mexico is about 30 percent, compared to less than 3 percent in the United States. As a result, the real peso has appreciated relative to 1995, buying relatively more U.S. goods. Further, Mexico appears to be experiencing a modest economic recovery. Thus, farm exports to Mexico are expected to be $4.4 billion in 1996, up sharply from 1995's $3.7 billion.

Farm Expenses Marginally Rise from Higher Energy Costs

Even if fuel prices fall through the summer and early fall as expected, the increase in diesel fuel expenses is likely higher than one would expect because a disproportionate share of fuel is used in the first half of the year. But because fuel expenses are less than 3 percent of total production expenses, the overall impact of higher fuel prices on farm income will be small. The recent increases in natural gas prices will put upward pressure on 1997's fertilizer prices.

Interest rates for the farm sector should be relatively flat. Long-term market rates for 1996 are unchanged from 1995, suggesting little movement in real estate loan rates. Lower T-bill rates suggest somewhat lower interest rates charged on nonreal estate loans by large banks. Smaller banks retiring CDS from the low interest rate period of 1992-1994 will be raising loan rates as the average cost of funds goes up. The CD rates now are substantially higher than 3 years ago, raising the cost of funds to small banks who are paying more for new, higher yielding CDS .

The net result will likely be roughly unchanged average farm interest rates on nonreal estate loans. Except for fuel, farm-manufactured input prices should rise at or below the rate of inflation.

Forecast Risks

A recession in 1996 is extremely unlikely. The most likely alternative scenario is higher than expected consumer spending growth from higher than expected increases in wages and increasing use of debt to finance consumer spending. In the next few quarters this would make little difference in inflation prospects, with energy prices falling less sharply than in the base scenario. However, the real trade deficit would likely deteriorate and thus moderate the impact of continued strong consumer spending on GDP growth. GDP growth in the second half of 1996 would then be about 2.6 to 3.5 percent. Given that GDP growth, the Fed would likely become restrictive to avoid a run up of future inflation and would raise short term rates by 50 to 75 basis points by the end of 1996. Anticipating this tightening, bond yields would rise 50 to 75 basis points in the late third quarter. The alternative scenario would imply somewhat stronger foreign growth and hence larger farm exports.

This increase in farm export growth would more than offset the impact of slightly higher fuel prices and the small increases in interest rates. The small and late increases in market interest rates from the high growth scenario would have little impact on 1996's farm interest rates.

Appendix table 1--Farm income statements, 1991-96

Item	1991	1992	1993	1994	1995F	1996F
			Billion dollars			
Cash income:						
1. Cash receipts	167.8	171.3	177.1	179.7	185.6	194 to 201
Crops 1/	82.0	85.7	87.1	91.6	98.8	106 to 111
Livestock	85.7	85.6	90.0	88.1	86.8	88 to 91
2. Direct government payments	8.2	9.2	13.4	7.9	7.3	7 to 9
3. Farm-related income 2/	8.3	8.2	9.1	9.2	9.3	9 to 11
4. Gross cash income (1+2+3)	184.3	188.6	199.6	196.7	202.2	211 to 219
5. Cash expenses 3/	133.9	133.2	141.5	146.9	152.1	155 to 163
6. NET CASH INCOME (4-5)	50.4	55.4	58.1	49.8	50.1	51 to 61
Farm income:						
7. Gross cash income (1+2+3)	184.3	188.6	199.6	196.7	202.2	211 to 219
8. Nonmoney income 4/	7.7	7.8	7.9	8.1	8.3	8 to 10
9. Inventory adjustment	-0.2	4.2	-4.5	8.7	-3.4	3 to 7
10. Total gross income (7+8+9)	191.8	200.5	203.0	213.5	207.1	225 to 233
11. Total expenses	153.4	152.6	160.9	166.7	171.9	175 to 183
12. NET FARM INCOME (10-11)	38.4	48.0	42.1	46.7	35.3	45 to 55

F = forecast. Totals may not add due to rounding.

1/ Includes payments received from CCC for placement of crops under nonrecourse loans.

2/ Income from machine hire and custom work, forest product sales, custom feeding service fees, and other farm sources.

3/ Excludes expenses for onfarm operator dwellings and noncash items such as capital consumption and perquisites to hired labor.

4/ Includes the value of home consumption of farm products plus imputed rental value of operator dwellings.

Appendix table 2--Average income to farm operator households, 1991-96

Item	1991	1992	1993	1994 R 2/	1995F	1996F
			Dollars per operator household			
Farm operator household income	37,447	42,911	40,223	42,469	43,348	42,500 to 47,800
Income to the household from farming 1/	5,810	7,180	4,815	4,376	4,180	3,500 to 6,200
Self-employment farm income	4,458	5,172	3,623	3,407	n/a	n/a
Other farm income to household	1,352	2,008	1,192	970	n/a	n/a
Income from off-farm sources	31,638	35,731	35,408	38,092	39,168	39,000 to 41,600
Income from wages, salaries, and nonfarm businesses	23,551	27,022	25,215	28,750	n/a	n/a
Income from interest, dividends, transfer payments, etc.	8,087	8,709	10,194	9,342	n/a	n/a

F= forecast R=revised n/a=not available

1/ Income to the household from farming equals self-employment income plus amounts that operators pay themselves and family members to work on the farm, income from renting out acreage (1991-92), and net income from a farm business other than the one being surveyed. In 1993-94, income from renting out acreage is included in income from interest, dividends, transfer payments, etc.

2/ Revisions for 1994 reflect (1) changes in the procedure for imputing refusals to survey questions about off-farm income and (2) exclusion of breeding stock from cash income of the farm if breeding stock is purchased and depreciation for breeding stock is reported.

Appendix table 3--Relationship of net cash to net farm income, 1991-96

Item	1991	1992	1993	1994	1995F	1996F
	Billion dollars					
Gross cash income	184.3	188.6	199.6	196.7	202.2	211 to 219
Minus cash expenses	133.9	133.2	141.5	146.9	152.1	155 to 163
Equals net cash income	50.4	55.4	58.1	49.8	50.1	51 to 61
Plus nonmoney income 1/	7.7	7.8	7.9	8.1	8.3	8 to 10
Plus value of inventory change	-0.2	4.2	-4.5	8.7	-3.4	3 to 7
Minus noncash expenses	15.4	15.2	15.3	15.4	15.6	15 to 17
Labor perquisites	0.5	0.5	0.4	0.4	0.5	0 to 1
Net capital consumption	14.9	14.7	14.9	15.0	15.2	14 to 16
Capital consumption excluding dwellings	16.3	16.1	16.3	16.4	16.6	16 to 18
- Landlord capital consumption	1.4	1.4	1.4	1.4	1.4	0 to 2
Minus operator dwelling expenses	4.1	4.2	4.1	4.3	4.1	3 to 5
Capital consumption	1.9	2.2	2.1	2.0	2.2	1 to 3
Interest	0.6	0.6	0.5	0.6	0.5	0 to 1
Property taxes	0.6	0.6	0.7	0.7	0.7	0 to 2
Repair and maintenance	0.7	0.6	0.5	0.7	0.5	0 to 1
Insurance	0.3	0.3	0.3	0.3	0.2	0 to 1
Equals net farm income	38.4	48	42.1	46.7	35.3	45 to 55

F = forecast.

1/ The value of home consumption and gross rental value of all dwellings.

Appendix table 4--Cash receipts, 1991-96

Item	1991	1992	1993	1994	1995F	1996F
				Billion dollars		
Crop receipts 1/	82.0	85.7	87.1	91.6	98.8	106 to 111
Food grains	7.3	8.5	8.2	9.5	10.0	10 to 12
Wheat	6.3	7.2	7.5	7.8	8.8	9 to 11
Rice	1.0	1.3	0.7	1.7	1.3	1 to 2
Feed grains and hay	19.3	20.1	20.2	20.6	23.1	26 to 30
Corn	14.4	14.7	14.6	15.0	17.4	21 to 23
Sorghum, barley, and oats	2.1	2.3	2.0	1.9	2.1	2 to 4
Oil crops	12.7	13.3	13.2	15.2	14.8	16 to 18
Soybeans	11.0	11.6	11.8	13.4	13.2	14 to 17
Peanuts	1.4	1.3	1.0	1.2	1.0	1 to 2
Cotton lint and seed	5.2	5.2	5.2	5.7	7.5	6 to 8
Tobacco	2.9	3.0	2.9	2.6	2.5	2 to 4
Fruits and nuts	9.9	10.2	10.3	10.1	10.6	10 to 12
Vegetables	11.5	11.8	13.1	13.0	15.1	13 to 16
Greenhouse & nursery	9.1	9.3	9.7	10.0	10.3	10 to 11
Livestock receipts 2/	85.8	85.6	90.0	88.1	86.8	88 to 91
Red meats	50.1	47.7	50.8	46.8	44.7	40 to 48
Cattle and calves	38.7	37.3	39.4	36.4	34.0	30 to 35
Hogs	11.0	10.0	10.9	9.9	10.1	11 to 12
Sheep and lambs	0.4	0.5	0.5	0.5	0.6	0 to 1
Poultry and eggs	15.1	15.5	17.3	18.4	19.1	18 to 22
Broilers	8.4	9.2	10.4	11.4	11.8	12 to 14
Turkeys	2.4	2.4	2.5	2.7	2.7	2 to 3
Eggs	3.9	3.4	3.8	3.8	4.0	3 to 5
Dairy products	18.0	19.7	19.2	19.9	19.9	21 to 23
TOTAL RECEIPTS	167.8	171.3	177.1	179.7	185.6	194 to 201

F = forecast. Totals may not add due to rounding.
1/ Includes sugar, seed, and other miscellaneous crops.
2/ Includes miscellaneous livestock and livestock products.

Appendix table 5--Farm production expenses, 1991-96

Item	1991	1992	1993	1994	1995F	1996F
			Billion dollars			
Farm-origin	38.9	38.9	41.6	41.6	42.4	42 to 46
Feed purchased	19.3	20.1	21.4	22.6	24.3	25 to 29
Livestock and poultry purchased	14.4	13.9	15.0	13.6	12.8	9 to 13
Seed purchased	5.1	4.9	5.2	5.4	5.3	5 to 7
Manufactured inputs	20.6	20.1	20.5	21.7	22.7	23 to 27
Fertilizer and lime	8.7	8.3	8.4	9.2	9.8	8 to 13
Pesticides	6.3	6.5	6.7	7.2	7.5	7 to 9
Petroleum fuel and oils	5.6	5.3	5.3	5.3	5.4	5 to 8
Interest	12.1	11.2	10.8	11.7	12.6	11 to 14
Nonreal estate	6.1	5.4	5.3	6.0	6.7	5 to 8
Real estate	6.0	5.8	5.5	5.7	5.9	5 to 7
Other operating expenses	47.9	47.3	52.4	55.6	57.4	57 to 62
Repair and maintenance	8.6	8.5	9.2	9.2	9.3	9 to 11
Machine hire and customwork	3.5	3.8	4.4	4.8	4.8	4 to 6
Marketing, storage & transportation	4.7	4.5	5.6	6.7	6.8	6 to 8
Labor	13.9	14.0	15.0	15.3	16.0	14 to 18
Miscellaneous	17.2	16.5	18.1	19.6	20.4	19 to 23
Other overhead expenses	33.9	35.1	35.7	36.1	36.8	37 to 40
Capital consumption	18.2	18.3	18.4	18.5	18.8	17 to 21
Property taxes	5.8	6.0	6.3	6.6	6.6	6 to 8
Net rent to nonoperator landlords	9.9	10.7	11.0	11.1	11.4	12 to 14
Total production expenses	153.4	152.6	160.9	166.7	171.9	175 to 183
Noncash expenses	15.5	15.2	15.3	15.5	15.6	15 to 17
Labor perquisites	0.5	0.5	0.4	0.4	0.5	0 to 1
Net capital consumption	14.9	14.7	14.9	15.0	15.2	14 to 16
Capital consumption exc. dwellings	16.3	16.1	16.3	16.4	16.6	16 to 18
- Landlord capital consumption	1.4	1.4	1.4	1.4	1.4	0 to 2
Operator dwelling expenses	4.1	4.2	4.1	4.3	4.1	3 to 5
Capital consumption	1.9	2.2	2.1	2.0	2.2	1 to 3
Interest	0.6	0.6	0.5	0.6	0.5	0 to 1
Property taxes	0.6	0.6	0.7	0.7	0.7	0 to 2
Repair and maintenance	0.7	0.6	0.5	0.7	0.5	0 to 1
Insurance	0.3	0.3	0.3	0.3	0.2	0 to 1
Cash expenses 1/	133.9	133.2	141.5	146.9	152.1	155 to 163

F = forecast.

1/ Total production expenses minus noncash and onfarm operator dwelling expenses.

Appendix table 6--Farm income distribution by selected enterprise type, 1993-96 1/

Item	Crops				Livestock			
	Total	2/ Cash grain	Cotton	Fruit/nut/ vegetable	Total	Red meat	Poultry	Dairy
	Billion dollars							
Cash receipts--								
Crops								
1993	79.7	29.7	4.2	21.9	7.4	5.6	0.4	1.1
1994	85.6	34.1	5.6	24.8	6.0	4.2	0.2	1.0
1995F	88.6	35.5	6.3	24.5	10.1	5.8	*	1.2
1996F	96.5	42.4	6.2	24.6	11.7	6.7	*	1.3
Livestock								
1993	4.4	3.0	0.1	0.1	85.6	43.0	17.4	22.0
1994	7.7	5.6	0.1	0.1	80.4	36.5	18.5	22.2
1995F	3.9	2.7	*	*	82.9	37.3	19.1	21.8
1996F	3.9	2.7	*	*	85.6	37.1	20.0	23.8
Direct government payments								
1993	9.9	6.4	1.1	0.2	3.5	2.7	0.0	0.7
1994	6.1	3.5	0.6	0.2	1.7	1.3	0.0	0.3
1995F	5.1	3.6	0.6	*	2.1	1.5	*	*
1996F	5.7	4.0	0.6	*	2.3	1.6	*	*
Gross cash income-- 3/								
1993	99.6	41.5	5.9	23.4	100.0	53.3	18.7	24.1
1994	105.4	45.2	6.8	27.1	91.3	43.4	19.9	24.1
1995F	102.7	43.8	7.3	25.7	99.4	46.8	20.0	24.1
1996F	111.3	51.2	7.3	25.8	104.1	47.7	21.0	26.3
Cash expenses--								
1993	65.8	27.5	3.7	13.9	75.7	44.7	9.0	19.4
1994	74.2	31.9	4.5	16.7	72.7	36.6	12.5	20.3
1995F	70.5	31.7	4.3	15.3	81.2	45.4	10.0	20.4
1996F	74.4	33.7	4.6	16.0	84.9	46.7	10.0	21.9
Net cash income-- 4/								
1993	33.8	14.1	2.2	9.5	24.3	8.7	9.8	4.8
1994	31.2	13.3	2.4	10.4	18.6	6.7	7.4	3.8
1995F	32.2	12.1	3.0	10.4	18.2	1.5	10.0	3.7
1996F	36.8	17.5	2.7	9.9	19.3	1.0	11.0	4.4

F = forecast. * = less than $500 million. Numbers are rounded.

1/ Farm types are defined as those with 50 percent or more of the value of production accounted for by a specific commodity or commodity group.

2/ Includes farms earning at least half their receipts from sales of wheat, corn, soybeans, rice, sorghum, barley, oats, or or a mix of cash grains.

3/ Cash receipts plus government payments plus farm related income.

4/ Gross cash income minus cash expenses.

Appendix table 7--Value added by the agricultural sector, 1991-96

Item	1991	1992	1993	1994	1995F	1996F
	Billion dollars					
Crop output	80.9	89.0	81.6	98.9	95.0	109 to 117
Cash receipts	82.0	85.7	87.1	91.6	98.8	106 to 111
Home consumption	0.1	0.1	0.1	0.1	0.1	0 to 1
Value of inventory adjustment	-1.2	3.2	-5.6	7.3	-3.9	2 to 6
Livestock and poultry output	87.3	87.0	91.6	89.9	87.7	87 to 95
Cash receipts	85.8	85.6	90.0	88.1	86.8	88 to 91
Home consumption	0.5	0.5	0.5	0.4	0.4	0 to 1
Value of inventory adjustment	1.0	1.0	1.1	1.4	0.5	-1 to 3
Farm-related income	8.3	8.2	9.1	9.2	9.3	9 to 11
Gross rental value of farm dwellings	7.1	7.2	7.3	7.6	7.9	7 to 9
Equal: Agricultural sector output	183.6	191.3	189.6	205.6	199.9	217 to 225
Less: Intermediate consumption outlays	94.7	93.7	100.8	105.1	108.0	108 to 118
Farm origin	38.9	38.9	41.6	41.6	42.4	42 to 46
Feed purchased	19.3	20.1	21.4	22.6	24.3	25 to 29
Livestock and poultry purchased	14.4	13.9	15.0	13.6	12.8	9 to 13
Seed purchased	5.1	4.9	5.2	5.4	5.3	5 to 7
Manufactured inputs	20.6	20.1	20.5	21.7	22.7	23 to 27
Fertilizer and lime	8.7	8.3	8.4	9.2	9.8	8 to 13
Pesticides	6.3	6.5	6.7	7.2	7.5	7 to 9
Fuel and oils	5.6	5.3	5.4	5.3	5.4	5 to 8
Other	35.3	34.6	38.8	41.8	42.8	42 to 46
Repair and maintenance	8.6	8.5	9.2	9.2	9.3	9 to 11
Machine hire and custom work	3.5	3.8	4.4	4.8	4.8	4 to 6
Marketing, storage, and transportation	4.7	4.5	5.6	6.7	6.8	6 to 8
Contract labor	1.6	1.7	1.8	1.8	1.8	1 to 3
Miscellaneous	16.8	16.1	17.8	19.3	20.1	19 to 23
Plus: Net Government transactions	2.1	2.8	6.8	1.0	0.3	-1 to 3
+Direct government payments	8.2	9.2	13.4	7.9	7.3	7 to 9
-Vehicle registration and licensing fees	0.3	0.4	0.4	0.3	0.3	0 to 1
-Property taxes	5.8	6.0	6.3	6.6	6.6	6 to 8
Equal: Gross value added	90.9	100.4	95.5	101.5	92.3	104 to 114
Less: Capital consumption	18.2	18.3	18.4	18.5	18.8	17 to 21
Equal: NET VALUE ADDED	72.7	82.1	77.2	83.0	73.5	85 to 95

F = forecast.

Appendix table 8--Farm business balance sheet, 1991-96

	1991	1992	1993	1994	1995F	1996F
				Billion dollars		
Farm assets	843.7	868.4	902.9	933.5	952.8	982 to 992
Real estate	624.4	640.6	670.9	703.3	726.0	747 to 757
Livestock and poultry	68.1	71.0	72.8	68.3	64.6	64 to 68
Machinery and motor vehicles	85.8	85.6	85.2	85.7	87.2	87 to 91
Crops stored 1/	22.2	24.2	23.3	23.4	23.0	23 to 27
Purchased inputs	2.7	3.9	4.2	5.0	4.0	4 to 5
Financial assets	40.6	43.1	46.6	47.7	48.0	48 to 52
Farm debt	139.2	139.1	142.0	146.8	149.7	152 to 156
Real estate 2/	74.9	75.4	76.0	77.6	78.0	78 to 82
Nonreal estate	64.3	63.6	65.9	69.1	71.7	72 to 76
Farm equity	704.5	729.4	761.0	786.7	806.9	831 to 841

F = forecast

1/ Non-CCC crops held on farm plus value above loan rate for crops held under CCC.

2/ Includes CCC storage and drying facility loans.

Appendix table 9--Farm sector rates of return, 1991-96

Item	1991	1992	1993	1994	1995F	1996F
				Percent		
Rate of return on assets	3.1	4.1	2.9	3.6	1.9	3 to 4
Real capital gains on assets	-1.9	0.4	2.3	1.3	0.8	0 to 1
Total real return on assets 1/	1.2	4.5	5.3	4.9	2.6	3 to 4
Average interest rate paid on debt	8.3	7.6	7.3	7.7	8.0	7 to 8
Real capital gains on debt	3.6	2.7	2.1	2.0	2.9	2 to 3
Real cost of debt 2/	4.6	4.9	5.2	5.7	5.1	4 to 5
Rate of return on equity	2.0	3.4	2.1	2.9	0.6	2 to 3
Real capital gains on equity	-1.5	1.0	3.1	1.9	1.3	1 to 2
Total real return on equity 3/	0.5	4.4	5.3	4.8	1.9	3 to 4
Real net return on assets financed by debt	-3.5	-0.4	0.0	-0.7	-2.5	0 to -1

F = forecast. Numbers may not add due to rounding.

1/ Rate of return on assets from current income plus rate of return from real capital gains.

2/ Average interest rate paid on farm debt minus real capital gains on debt.

3/ Rate of return on equity plus rate of return from real capital gains.

4/ Total real return on farm assets minus the real cost of debt.

Appendix table 10--Farm financial measures, 1991-96

Ratios	1991	1992	1993	1994	1995F	1996F
Liquidity ratios:						
Farm business debt service coverage 1/	2.22	2.44	2.54	2.15	2.09	2 to 3
Debt servicing 2/	0.15	0.14	0.14	0.14	0.15	0.13 to 0.15
Times interest earned ratio 3/	4.65	5.83	5.46	5.56	4.35	5.5 to 5.6
			Percent			
Solvency ratios:						
Debt/asset 4/	16.5	16.0	15.7	15.7	15.8	15 to 16
Debt/equity 5/	19.8	19.1	18.7	18.7	18.8	18 to 19
Profitability ratios:						
Return on equity 6/	2.0	3.4	2.1	2.9	0.6	2 to 3
Return on assets 7/	3.1	4.1	2.9	3.6	1.9	3 to 4
Financial efficiency ratios:						
Gross ratio 8/	72.7	70.6	70.9	74.7	74.8	72 to 76
Interest to gross cash farm income 9/	6.2	5.6	5.2	5.6	6.0	5 to 7
Asset turnover 10/	21.9	22.0	22.5	21.6	21.4	21 to 23
Net cash farm income to debt ratio 11/	44.7	47.5	48.7	42.2	42.3	43 to 47

F = forecast

1/ Assesses the ability of farm businesses to repay interest and principal associated with farm business debt from net cash farm income. Higher values indicate a better cash position.

2/ Indicates the proportion of gross cash farm income needed to service debt. Lower values indicate a relatively better cash position.

3/ Focuses on the ability to meet interest payments out of net farm income. A higher value of the times interest-earned ratio indicates that net farm income covers more interest expense and that operator equity is less exposed to risk.

4/ Indicates the relative dependence of farm businesses on debt and their ability to use additional credit without impairing their risk-bearing ability.

5/ Measures the relative proportion of funds provided by creditors (debt) and owners (equity).

6/ Measure the per dollar returns to equity capital employed in the farm business from current income.

7/ Measures the per dollar return to farm assets from current income.

8/ Gives the proportion of gross cash farm income absorbed by cash production expenses. The higher the value of the ratio, the less efficient the farm sector is considered to be.

9/ Gives the proportion of gross farm revenue absorbed by interest payments. Higher values indicate a relatively fixed expense structure and less flexibility in meeting cash expenses as they arise.

10/ Measures the gross cash farm income generated per dollar of farm assets. The higher the value of the ratio relative to similar sized operations, the more efficiently the farm business uses its assets.

11/ Reflects the strain placed on cash-flow to retire debt. The lower the value, the greater the stress placed on cash income to retire farm debt on schedule.

List of Tables

Text Tables

Page

Appendix Tables

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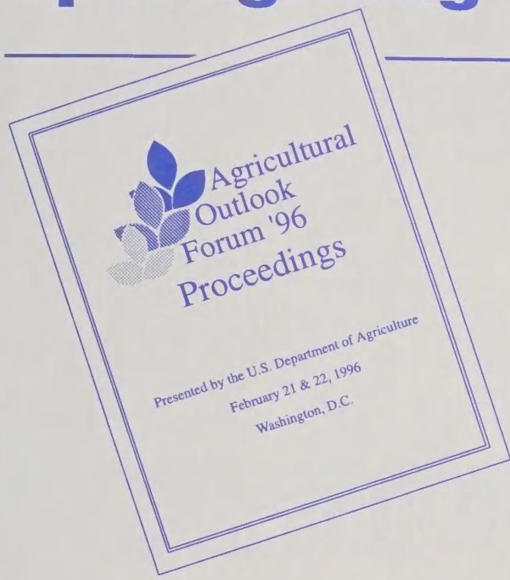

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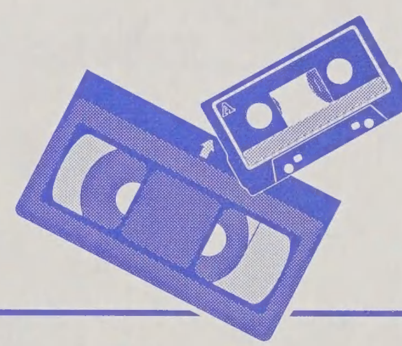

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